

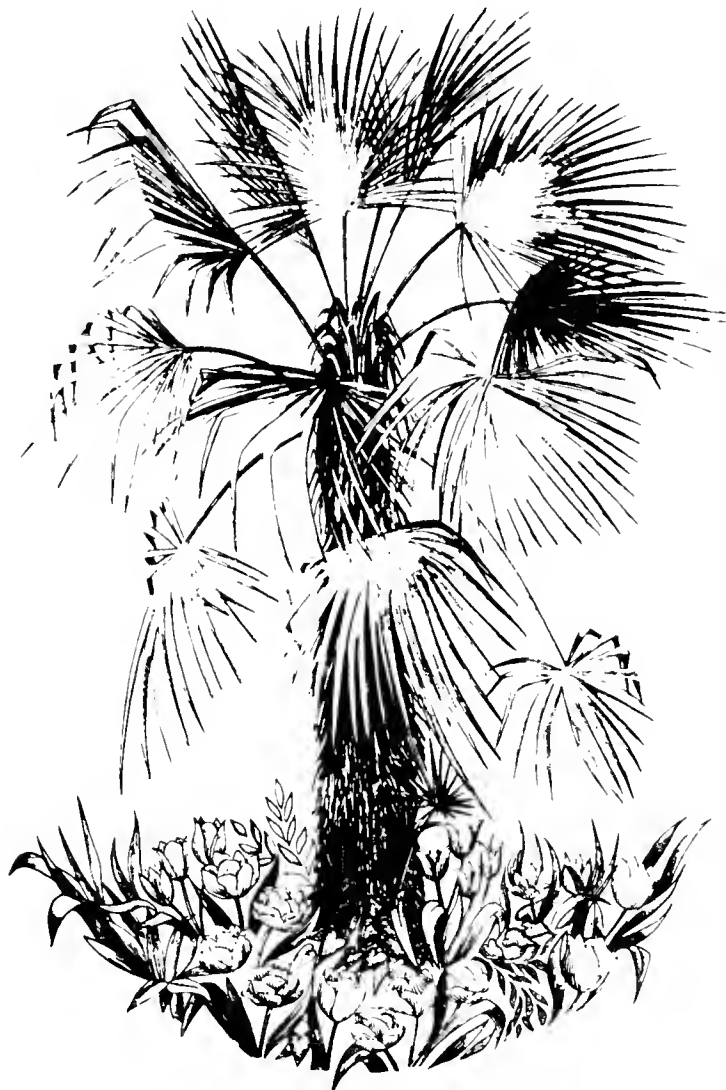
Horticulture Northwest

Journal of the Northwest Ornamental Horticultural Society

CARL S. ENGLISH, JR. GARDENS

AT THE

HIRAM M. CHITTENDEN LOCKS



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Sallie D. Allen, Editor

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Carl S. English, Jr. Gardens

THE CARL S. ENGLISH, JR. GARDENS



IN HONOR OF THE MAN WHO DEVOTED 43 YEARS OF FEDERAL SERVICE TO THE DEVELOPMENT AND CARE OF THESE GARDENS. HE GATHERED AN EXTENSIVE COLLECTION OF PLANTS AND SEEDS FROM AROUND THE WORLD. HIS LANDSCAPE ARRANGEMENTS PROVIDE VISITORS A VARIETY OF TEXTURE AND COLOR THROUGHOUT THE YEAR.



DEDICATED 10 DECEMBER 1974
BY THE
SEATTLE DISTRICT
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Fig. 1

CARL S. ENGLISH, JR.

William J. Dress

Outside the weathered cedar gate that opens to the home and garden of the Carl Englishes, stands a slender little white-barked tree with small gray-green leaves, and, in season, triads of modest little flowers consisting mostly of yellow stamens. The knowledgeable visitor who recognizes it as a eucalyptus¹, thriving in Seattle, Washington, far north of its larger relatives so common in California, and even farther from its native Australia, may at once anticipate the rich store of horticultural rarities gathered together beyond the gate. For Carl English, though a botanist, horticulturist, and nurseryman, is first of all a dedicated "dirt-gardener." His seed and nursery business is an outgrowth of his enthusiasm for searching out the lovely and rare natives of the mountains and forests of the Northwest, and of his keen enjoyment in growing these and choice exotics for his own pleasure.

As with many other horticulturists, both amateur and professional, this interest in plants developed while Carl was still a boy, an interest perhaps awakened and stimulated by the many houseplants and garden flowers which flourished under his mother's care on the family farm near Camas, Washington. When only 16 years old, he built a 16 by 50 foot greenhouse with his own funds, and with only a little additional help. A freshman course in botany in high school inspired him to specialize later in that subject in college, and so, when he graduated in 1929 from the State College of Washington at Pullman, it was with a B.A. degree in botany. His work in that field, however, had been supplemented by considerable work in ornamental horticulture and landscape-architecture.

It was while at college that Carl English met the girl who was later to become his wife. Working one day in the herbarium, he became acquainted with fellow-student Edith Hardin, who, though majoring in zoology, was equally interested in botany. Both were students of Dr. Harold St. John (now at the University of Hawaii), who, as a teacher, was so able to communicate to his students his own enthusiasm for systematic botany that Mr. and Mrs. English have faithfully maintained a very active interest in the taxonomic and nomenclatural problems of the plants which are so much a part of their lives.

Following his graduation from college, the Englishes settled in Portland, Oregon, where Mr. English did landscape work for the Swiss Floral Company, owned by J. G. Bacher. Right from the start, however, the Englishes established a small spare-time seed and plant business, dealing entirely in natives of the Pacific Northwest. Their first list, sent out in 1930, offered well over a hundred species of plants and about the same number of kinds of seeds.

In 1931 the Englishes took up residence in Seattle, where Mr. English is Horticulturist (a civilian position) with the Corps of U.S. Engineers at the Government Locks park. This is the position from which he actually earns his livelihood, for the seed and plant business is still a spare-time

¹Eucalyptus gunnii, perhaps the hardiest species of the genus.

enterprise, though it has grown considerably in volume and earnings, as well as in the variety of plant materials offered, since it was begun in 1929. At present, about 1,500 kinds of plants and about 1,000 kinds of seeds are available from him.

Though having no connection with Mr. English's private business, the public park at the Government Locks reflects very strongly his wide knowledge of plant materials. Under his supervision, and with his many personal contributions of seeds and plants, the park has become a botanical garden in miniature, for the informally planted beds and borders embrace an extensive collection of plants, chiefly of outstanding trees and shrubs from all over the world. Nearly all of these have been grown from seed obtained through exchange with botanic gardens throughout the world.

Ornamentals seldom otherwise encountered so far north, but thriving at the park, are a dwarf palm (*Chamaerops humilis*), the windmill palm (*Trachycarpus fortunei*), *Fremontia californica*, *Trochodendron aralioides*, *Embothrium coccineum*, and *Eucryphia glutinosa*.

The home nursery itself is, for the most part, at the rear of the Englishes' own garden on the one-acre plot christened "Dogwood Dell" by Mrs. English. This was originally a bit of rich woodland on irregular ground. That corner of the lot farthest from the house has been kept nearly in its original state, with its large maples, dogwoods, and hemlocks, and natural growth of *Gaultheria shallon* and *Holodiscus discolor*. This natural vegetation grades into plantings of rhododendrons and other shrubs, with their underplantings of native woodland herbs. Beyond these, on the other side of the lawn and in the high-shade of trees and shrubs edging the drive, are the carefully prepared sloping beds of acid humus in which have been set all the smaller plant-treasures, native and exotic, which are Carl English's particular delight. Here, thriving among mosses and logs, are many small ferns, including a tiny dwarf form of the maidenhair (*Adiantum pedatum*) which came originally from the coast of the Olympic Peninsula; a number of dainty start-flowered native members of the saxifrage family -- species of *Tellima*, *Tiarella*, *Mitella*, *Tolmiea*, *Bensonia*, *Boykinia*, *Heuchera*; many dwarf ericaceous shrublets such as *Epigaea asiatica*, *Leucothoe davisiae*, *Tripetaleia bracteata*, *Orphanidesia gaultherioides*, *Menziesia lasiophylla*, several kinds of *Gaultheria*, etc.; and various members of the genera *Dodecatheon*, *Soldanella*, *Primula*, *Synthyris*, *Shortia*, *Schizocodon*, *Ramonda*, *Coptis*, *Cypripedium*, and many other small choice things. Although this represents the Englishes' personal garden, the plants in it often furnish propagating material for the nursery, and their seeds are carefully gathered to swell the list offered to other gardeners.

Hidden from the rest of the garden by flowering shrubs are the small experimental beds where Edith English carries on her hybridizing, especially with native irises. Here she produced the lovely yellow *Iris* X *aureonympha* 'Golden Nymph', by hybridizing the West Coast natives, *I. douglasiana* and *I. innominata*. This hybrid won for her, in 1950, the National Horticultural Achievement Award given by the Federated Garden Clubs of America.

Behind the house and garden the land drops sharply to form the western slope of a light-wooded ravine; the upper part of this slope has been terraced to accommodate the numerous flats and pots of young trees, shrubs, and

perennials which comprise the nursery. A small greenhouse nearby is used by Carl for propagating his plants -- and by Edith for raising frogs! These are not ordinary frogs, of course, but are the entirely aquatic African *Xenopus laevis*, the females of which have been found to be so useful in clinical tests for pregnancy. Edith is able to supply quite a number of them to local hospitals, and is glad to do so, since, unlike some other animals also used in such tests, the frogs are not harmed in the process and, at intervals, may be used again and again.

In addition to the seeds which are collected in their garden, the seeds of many Northwestern natives are collected by the Englishes in the wild. In fact, in his own words, it was his "intense and inherent love of plant life and the enjoyment of plant exploration, especially in the high mountains," that prompted Mr. English to enter the nursery business in the first place. By carefully combining holidays and weekends with his annual leave from work at the park, the Englishes have, over the years, explored and botanized in many of the mountain ranges of the western states. Their favorite areas are the Cascades, the Olympics, the Wenatchee Mountains, the Blue Mountains, the Siskiyou, Mt. Baker, and Mt. Hood, although they have ranged even farther afield. This past summer, for instance, their botanical exploring took them to Montana, Wyoming, Idaho, and a corner of Oregon. A year ago, several high ranges in Utah and Nevada claimed their attention.

The number of previously rare or unobtainable species of native plants which these trips have made available to the horticultural world is legion, and includes trees, shrubs, and herbaceous plants. To list them would take several pages of this publication. Seeds especially are collected in quantity, but plants also are frequently taken. The Englishes "strongly disapprove of supplying plants directly from the wild, and will not do so." In their explorations they select outstanding individuals among the native species and then propagate these at home. Though it sometimes requires many years to develop sufficient stock to put a particular plant on the market, they count this time well-spent, their aim being quality, not quantity. Some selected forms of native plants have seemed so outstanding that they have been given cultivar names by the Englishes: *Synthyris reniformis* 'Regina', *Dodecatheon pauciflorum* 'Red Wings', *Iris douglasiana* 'Pegasus' and 'Chamois'.

Two lovely little plants of the purslane family (Portulacaceae), now to be found in the gardens of alpine-plant specialists, were originally discovered, named, and published by Carl English: *Talinum okanoganense* from the Okanogan Highlands of north-central Washington; and *Claytonia nivalis* from the Wenatchee Mountains of central Washington. In addition, he has produced at least two horticulturally worthy hybrids of native mountain-dwellers: *Penstemon* X *Edithiae* (*P. barrettae* X *P. rupicola*); and a *Lewisia* hybrid (*L. howellii* X *L. rupicola*).

At home, Carl and Edith "conduct what might be termed perpetual open-house, horticulturally speaking." During the fall, winter, and spring months, classes in either horticulture or botany meet there once a week. Garden-club members frequently come to get material for programs they are to present. The Englishes' library of horticultural and botanical books is always available to them to use -- the only rule being that the books must be used there. During the summer months they "have had the pleasure of welcoming many botanists and

horticulturists and have taken most of them on field trips to the mountains to help locate the plants they wished to study."

Both Carl and Edith English also give illustrated lectures outside their home, to garden clubs, schools, nature organizations, and similar groups, and have written many horticultural and botanical articles. For both lectures and articles, as well as the classes taught at their home, Mrs. English takes many black-and-white photographs and colored slides, for another of her hobbies and accomplishments is photography. (In addition, her part of the family activities includes composing and editing the catalogues, keeping the accounts, and pressing and mounting plants for their own private herbarium and for other herbaria.)

Both are active in the Northwestern Unit of the American Rock Garden Society, which Carl served as president for three years. In the Seattle Unit of the Men's Garden Club of America, he was last year program chairman, and is now president. In such an active life, it hardly seems possible that much opportunity would be afforded for moments of relaxation, but Carl says, "As occasional diversion from too concentrated a botanical diet, I enjoy good music and like to read, especially in the field of astronomy."

Many a horticulturist will agree, I think, that Carl and Edith English have indeed found the full life!

Reprinted from Baileya, Vol. 5, Sept. 1957.



Fig. 2 Carl S. English, Jr.

TEN PLANTS TO SEE THIS WINTER

Kathy Mendelson, Kirkland, Washington

Winter is often considered a cold, stark season, with little to see in a public garden. But if you brave the elements, there are actually many plants to discover at the Carl S. English, Jr. Gardens at the Ballard Locks. The garden's creator, Carl S. English, Jr., was a master of planning a garden for year-round interest. Winter flowering trees and shrubs sprinkle the garden with color and fragrance. Evergreen plant material offers both texture and a range of colors from dark green to gold to silver. Deciduous trees reveal a lacework of bare twigs against the winter sky.

Here is a short sampler of plants to look for this winter. Some may be familiar; others are less well known. Bed numbers included in this article will help you locate the plants in the garden. Ask at the Visitor Center (open Thursday through Monday, 11 a.m. - 5 p.m. in the winter) for a garden map that shows bed locations.

Conifers are the backbone of this garden in winter. In shades of green, gold, and blue, the garden's conifer collection draws from many genera and offers a chance to study some specimens approaching mature size.

Some well-known conifers are seen in the garden as outstanding individual specimens. Look for the Big Tree or giant sequoia (*Sequoiadendron giganteum*), a fairly common tree grown to what is uncommon size for this garden. The specimen growing immediately adjacent to the locks (Bed 14) was planted in 1933. At that time, it was only four feet tall. Now, it tops 115 feet, and measures approximately 15 feet in circumference, at breast height. Its branches reach almost to the ground; the crown forms a nearly perfect cone. If you visit this tree, duck your head to get under the branches and stand next to the trunk. Then look up, and see the intricate branching pattern that goes up . . . and up . . . and up.

The garden also contains many uncommon conifers. Look for the Mexican pine (*Pinus patula*), a three-needle pine, in front of the Visitor Center (Bed 304). The great beauty of the Mexican pine lies in its long, medium-green foliage, which droops gracefully from the upturned branches. Swaying when stirred by a breeze, the long needles shimmer in the sun. Like few other conifers, these trees seem to invite a hands-on investigation. Touch the needles, and you will discover perhaps the silkiest of all pines. The Mexican pine, native to the higher elevations of Mexico, is not completely hardy. Planted with a southwest exposure against a concrete building, these trees are sheltered. Even so, the taller specimens received top damage from the severe cold of December 1983.

Several conifers have been added to the collection in the past few years. Look for a weeping variety of the Alaska yellow cedar (*Chamaecyparis nootkatensis* var. 'Pendula'). Two young specimens were planted in front of the Administration Building (Beds 315A and 315B) in 1981. Now, these tall, slender trees are mantled with foliage that hangs loosely from the upright trunk and outreaching branches. The effect is striking. Compare the weeping variety

with the native species. A screening grove of five Alaska yellow cedar (*Chamaecyparis nootkatensis*) is planted in Bed 211.

Along with conifers, broadleaf evergreens add interest in winter. Look for the Fort Bragg manzanita (*Arctostaphylos nummularia*) in Bed 101. Producing dainty clusters of white flowers, this manzanita, which grows to 15 inches here, sometimes blooms as early as mid-February. The lustrous dark green leaves are somewhat rounded. They measure about three-quarters of an inch. Native to the coastal regions of northern California, this manzanita may not be completely hardy in the colder parts of the Northwest.

In addition to other shrubs, the garden has a fine collection of species and hybrid rhododendrons. A few of them add flowers to the garden in winter. One of the first to bloom is *Rhododendron* X 'Nobleanum' (Bed 26), a large shrub which sometimes blooms in December. This old hybrid has light pink flowers in tight trusses. The flowers are spotted on the upper corolla lobes.

Although they have no leaves in winter, a few deciduous trees and shrubs add flowers and fragrance to the garden. Blooming here sometimes as early as Christmas, the Chinese witch hazel (*Hamamelis mollis*) in Bed 122 is perhaps the most beautiful in the winter flowering plants. Long before the leaves appear, the bare branches are sprinkled with richly perfumed flowers. The narrow, strap-shaped petals, held at odd angles from the burgandy-colored calyx, are bright yellow. Back lit, with light coming through the petals, they seem to have trapped sunshine.

Some winter flowering shrubs have flowers that are small and colors that are subtle. Many of them are so fragrant that you find them first with your nose, then with your eyes. One such shrub is *Viburnum* X *bodnantense*, Bed 319. From time to time during winter, this shrub produces a sweet perfume. Search up and down this eight-foot tall shrub, and you will discover one or more small clusters of even smaller flowers. Medium pink fading to light pink, these fragrant flowers, despite their size, are worth the search.

Another winter blooming shrub, *Chimonanthes praecox* (Bed 318) is a rather ordinary shrub most of the year. The bright green leaves measure to five inches long. Their upper surfaces have an unusual, sandpaper-like texture. But, in January or February, this shrub lives up to its common name, Wintersweet. Lining the branches, the flowers have a heavy, sweet fragrance. The flowers themselves are distinctive. Their outer petals are pale yellow and seem almost translucent. The inner petals are a rich dark color somewhere between brown and purple.

Even without flowers, the deciduous plant material adds interest, texture, and muted colors to the garden. For example, look for the elegant twig habit of the Korean dogwood (*Cornus kousa*) in Beds 120 and 24. Winter buds on this tree are reminiscent of the onion domes of Russian Orthodox architecture. Look too for the bark, peeling to reveal fawn-colored patches beneath.

We invite you to visit the Carl S. English, Jr. Gardens this winter. The garden is open 7 a.m. to 9 p.m. seven days a week. The garden is located in northwest Seattle at 3015 Northwest 54th.



RAMBLING IN THE ROCKIES

Carl S. English, Jr.

Of the numerous mountain ranges of western United States, where an untold wealth of alpine flora is as yet unexploited, the region of central Idaho and western Montana has revealed evidence of possessing outstanding horticultural resources. Botanically this area has been studied and the plants are relatively well known but horticulturally these same species offer opportunities for exceedingly interesting experimentation and research. Of all the forms of horticultural activity, this appeals to me as offering the greatest enjoyment. Only those persons who have experienced the joy of search and discovery of rare plants in their native haunts can know the supreme thrill that comes with such an adventure.

It was with delightful anticipation that I welcomed the opportunity to visit the Rockies. Plans for the trip were long in the making; monographic studies and previous plant collections were perused; topographical, forest and road maps were consulted and routes were arranged that would include type localities and stations of previous collections without appreciably retracing ways already traveled.

September was chosen as a favorable month for such pursuit, some of the factors in its favor being the dormancy of the plants and the unlikeliness of hot weather which is so detrimental to newly collected plants. However, in avoiding hot weather, one must run the risk of encountering cold spells with flurries of snow and low temperatures at night. And such, indeed, were experienced. Even though the nights furnished plenty of thick ice in the drinking water, the days, with few exceptions, were those of glorious Indian summer.

Idaho possesses an extensive area of arctic-alpine zone with numerous permanent snow fields and several moderately sized glaciers. Scores of peaks in this region rise between 11,000 and 12,655 feet elevation, with varied habitats for alpine plants.

For the greater part, the mountains of Idaho have been badly abused by the over-grazing of sheep and cattle. The arctic-alpine zone has suffered slightly less than lower levels but many rare and handsome plants, unfortunately, are disappearing from this region before they have had an opportunity to demonstrate their beauty in cultivation.

One of the tasks that I have set for myself is that of introducing the numerous and fascinating members of the relic genus, *Synthyris*, into the horticultural world. Although this name, *Synthyris*, may suggest to many persons the modest little *S. rotundifolia* that grows here near sea level in the oak forests of western Washington and Oregon, the majority of the members of the genus are native to the arctic-alpine summits. The fact that they grow on these remote and inaccessible heights has contributed to their delay in becoming known in the world of alpine gardening. It was specifically for the purpose of bringing back several species of the pinnatifid division of *Synthyris*, together with a number of other desirable alpine, that my quest into the high regions of Idaho and Montana was undertaken.

*Reprinted from Little Gardens, Winter 1936, published by Lake Washington Garden Clubs.

These mountains offer a variety of geological formations, limestone being, perhaps, the most common, with occasional occurrence of granite, quartzite, sandstone and other types of rock. Of these, the various species of *Synthyris* were found only on limestone although records of one species examined indicate that it may also grow on granite.

It was in crevices of white limestone mountains that *Synthyris hendersoni*, the first of my especially desired plants was found. I had anticipated finding it in the open scree of high summits, but here it was, tucked so snugly into crevices of steep cliffs that it was very difficult to collect. The white woolliness of the foliage showed its close relationship to our own *S. lanuginosa* of the Olympic Mountains. The plants exhibited numerous flower buds, some of which already were showing samples of their rich, deep violet color. Only on one peak, at an elevation of 10,500 feet, was this species found and this collection, very likely, will constitute a new distribution record.

When it came time to look for the lovely *Synthyris cymopteroides*, naturally I tended to expect it in a situation similar to that in which *S. hendersoni* was found. However, after climbing for the greater part of the day about various limestone peaks in the area in which it had previously been reported, no sign of the desired plant was found. Upon descending to the very head of a small creek at the base of one of these peaks, just above timber line and at an elevation of about 10,000 feet, I arrived on an over-grazed mountain slope. Here I found one dry fruiting spike that, apparently, had been overlooked by the sheep. There were indications that it might have been produced by some species either of *Veronica* or *Synthyris*. Upon digging the plant and examining the roots, my hopes soared; it was a *Synthyris*. With some difficulty a sufficient number of plants was found to make a satisfactory collection. These were located, chiefly, by their very young flower spikes which, in spite of the starved condition of the plants, were beginning to emerge from the ground. Since bringing the plants home and giving them a little encouragement they have sent forth surprising amounts of foliage and have given ample evidence of their appreciation of the opportunity to grow unmolested. The leaves, with their delicate, little divisions, are very similar to those of a young carrot. There is a ferruginous cast to the foliage and the stems are reddish. It is going to be interesting to find out how large these clumps really will be when they have reached their height of development.

Synthyris cymopteroides, subsp. *canescens*, a near relative of the foregoing plant, was found on an adjacent range in Idaho, in almost the same type of habitat as that in which the species was growing. The leaves of the subspecies are reddish green with short, whitish pubescence. The stems and leaf petioles are reddish bronze and the flower spikes are somewhat woolly.

In Montana a range was visited which, happily, had been preserved in its primitive condition. All grazing animals, except those indigenous to the region, had been excluded. And what a joy it was to see the native vegetation in its savage state and to note what a surprising number of rare and handsome plants inhabited the area! Here it was that *Synthyris dissecta* was found. The plants exhibited a luxuriance of growth that contrasted sharply with the condition of previous collections.

In this range the arctic-alpine zone began at least 2,000 feet lower than it did in Idaho and the timber belt was much more highly developed, indicating a region of greater precipitation. *Synthyris dissecta* was found at the upper edge of the forest from 7,000 feet elevation on up to about 11,000 feet. The clumps it formed resembled those of *S. lanuginosa*. The foliage of *S. dissecta* is glabrous, green and very much pinnately dissected; the leaflets are quite crowded. Surprisingly large, woolly young flower spikes were noted in abundance, many buds showing violet color.

At the lower extent of its altitude range, *S. dissecta* was growing in crevices and on small turf-covered benches in the subalpine woods. Higher on the mountain, in addition to occurring in crevices, it was also found on open, limestone scree. It seemed to exhibit no choice as to exposure, growing with equal profusion on north and south slopes.

Even though some particular group of plants forms the objective, numerous other interesting species are certain to present themselves. Along with *S. dissecta* were tufts of *Douglasia biflora* and lovely mats of *Dryas octopetala*, *Saxifraga oppositifolia* and *S. austromontana*. Tiny species of *Anemone* and *Ranunculus* were abundant while the equally tiny rock fern, *Asplenium viride*, hid in shady crevices. Occasional clumps of *Campanula rotundifolia* provided late September bloom.

A range in northern Montana offered the only location for *Synthyris canbyi*. It was the last week in September when I arrived here and viewed a most awe-inspiring sight of the Rockies with a new, clean fall of snow on the summits. The landscape before me was one of majestic beauty, but for the botanist these snow-covered peaks held doubtful prospects of success.

Stopping briefly at a little mission town in the Flathead Indian Reservation, I was warned to beware of grizzly bears in these particular mountains. Rather than striking terror in me, I found consolation in the realization that this region had been so unabused by the Indians that such noble animals as grizzlies could continue to exist there while being exterminated in so much of the territory of the white man. However, the only signs of grizzlies that I noted were those of bark being torn from snags and logs where bears, apparently, had been hunting for ants. There was also evidence of the abundance of other forms of wild life here.

The forest of this region was very thick on the steep mountain sides and there were no trails leading through it. Arriving here at two o'clock in the afternoon, it was necessary to make my way some 4,000 feet of altitude up through the timber to the open arctic-alpine summits. Two and a half hours later I emerged into the open, high country above timber line to find that much of the newly fallen snow had melted. *Synthyris canbyi* was found growing in fair abundance on the rocky slopes of limestone. This species, with its broadened, pinnately dissected to pinnately compound foliage, forms a perfect connecting link between the pinnatifid and the reniform groups of the genus, *Synthyris*. Like the other species, *S. canbyi* displayed numerous flower spikes in preparation of blossoms for the coming season.

My observations in this region were terminated suddenly by an enveloping fog, followed by a blinding snow storm, but it was with reluctance that I left this most interesting range so hurriedly to descend to the lower levels. I was thankful, however, that the break in the weather conditions had allowed me sufficient time to find the desired plant.

Aside from the collection of the several species of *Synthyris*, perhaps the most valuable plant found was the miniature undershrub, *Kelseya uniflora*. This cliff-loving species is, perhaps, the lowest growing and the slowest growing shrub of the Rosaceae. The flowers are white and solitary; the foliage is minute and densely imbricated. In all, the plant is one of classical appearance. It was found on perpendicular limestone cliffs, seeming to prefer the north exposure. Mature plants occasionally measured three to four feet in diameter and very likely would approach a thousand years in age. The first location at which I saw it was above 11,000 feet elevation which proved that it rightfully may be called an alpine. Later it was found at 6,500 feet. Although practically unknown today in the horticultural world, *Kelseya uniflora* bids fair to become one of the most desirable of tiny, alpine shrubs.

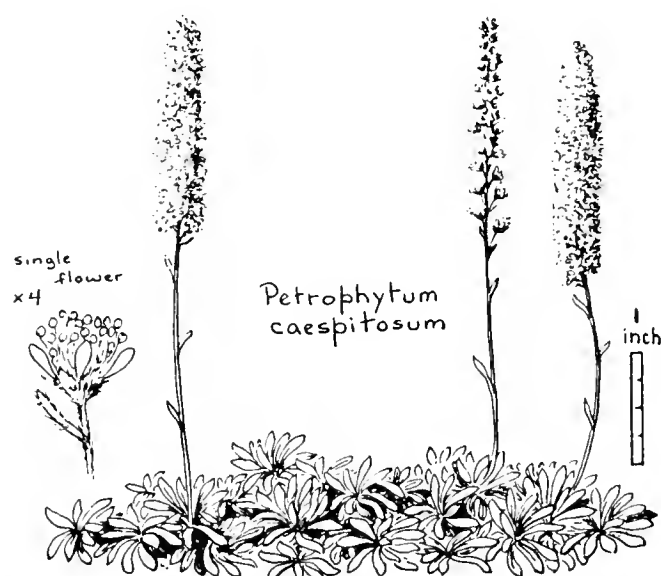


Fig. 3 *Petrophytum caespitosum*

Jeanne R. Janish

Flowers of the Southeast Mesas

Pauline M. Patraw

Petrophytum caespitosum, another handsome undershrub of the Rosaceae and near relative of *Kelseya uniflora*, was seen more frequently. Its foliage is bluish gray with silky pubescence; the flowers which are small and white are borne in upright spikes, usually three to eight inches in height. This plant is like *Kelseya* in growing on limestone cliffs, but unlike it in showing little preference as to exposure.

On practically all of my climbs I happened upon the quaint little cushions of the various species of *Draba*. This is a genus of native plants to which we well may look for new and interesting alpine garden subjects. Each peak visited could be depended upon to provide at least three different kinds of *Draba* and almost invariably one of these would be a species that had not occurred on any of the mountains previously visited. All were far past bloom and most of the seed pods had dropped, but the tufts of compact foliage were beginning to take on new life with the coming of cool, autumn days. All told, over a dozen different kinds were found. One especially promising plant has fleshy leaves like a miniature species of *Sedum*.

In the screen of the summits of limestone mountains that range between 10,000 and 12,000 feet elevation, the slopes often were carpeted with *Eritrichium elongatum* and *E. howardi*. Refreshed by an early snow storm, *E. elongatum*, in several places, was in flower during the latter part of September. It was, indeed, disheartening in several other areas to note the devastation of these plants by sheep. Somehow, the thought of fattening sheep and cattle on such rare and precious plants as the genus *Eritrichium* has to offer, seemed entirely out of keeping with all propriety.



NOHS NURSERY SNOOPER

Puget Garden Resources

Pat Bender, Seattle, Washington

Your intrepid nursery snooper has struck again -- this time with husband and fortunate friend who has a whole new lot to landscape. Oh, happy situation!!!!!!

We journeyed to Vashon Island in search of Puget Garden Resources (formerly Colvos Creek Nursery and Landscaping). Sure enough, about 4.2 miles from the Vashon ferry dock we saw a sign (which still says Colvos Creek). Turning right, we drove 1/4 mile until we landed in the eucalyptus and knew we were in the right place. Pete Ray was there to greet us. He and his family have bought the nursery from Mike Lee, who founded it seven years ago. Pete worked with Mike for two years before buying the nursery. According to their 1983 catalog (now out of print):

"We have never been satisfied with the same predictable plants in every landscape, nor have we been happy with the persistent lack of such essentials as broadleaf evergreen trees and nursery-grown natives. Ours is one of the best horticultural climates in the world, and we want to exploit it thoroughly, providing a source for the many uncommon trees, shrubs and perennials that could contribute so much to Northwest plantings.

Naturally our stock list is tailored to the climate of Western Washington (USDA hardiness zones 8-9). But, many of our plants are adapted to much colder regions. Most West Coast natives, though, no matter how hardy, do not tolerate summer rain or irrigation. We are told by Eastern correspondents that some of these will succeed if given a sharply drained soil.

Many plants on our list have been considered frost tender in this area. We have raised most of these from hardier stock and selected only the best young plants to grow on for sale. By this process, we have already found (and will soon have for sale) hardier forms of several tender plants, notably *Maytenus communis* and *Lyonothamnus floribundus*. Also, there are many supposedly cold-sensitive plants -- cistus, ceanothus, evergreen oaks, arbutus and such -- which, when well-sited and left alone, are among the most valuable, easily grown ornamentals we have."

This is a most uncommon nursery. Growing happily, having survived last winter's cold spell, are *Eucalyptus niphophila* (see an example next to the Arboretum offices), *E. perriniana* (there is one by the Montlake Cut), *E. archeri*, *E. parvifolia*, and *E. pauciflora*.

Also undamaged last winter were *Ceanothus impressus* and *C. x Veitchianus*. Surprisingly, several *Abutilon* species survived outdoors, as did *Acacia dealbata* and *Cistus psilosepalus*. Eucryphas we met include *E. intermedia*, *E. numansensis*, and *E. Rosetrevor*. (I had to have one of those!)

Mike and Ray have filled the nursery with interesting -- and unusual -- plants from seed. They have collected seed in Oregon of *Quercus chrysolepis*, *Q. vaccinifolia*, *Q. sadleriana*, and seeds and cuttings of many manzanitas. Who could resist *Arctostaphylos pajaroensis*? Certainly not I. And when Pete has enough to sell, plan not to resist *Arctostaphylos* Pt. Reyes.

The nursery runneth over with irresistable plants. I had to have *Spartium junceum*, the noninvasive Spanish broom. "Blooms all summer, fragrant, sulphur flowers." Now, how could anyone resist such a gem? Also irresistible were a variegated sage lovely English lavender, *Nyssa sylvatica* for wet spots (with a bonus of beautiful fall color), and *Halimocistus sahucii*, a hardy cross between *Cistus* and *Halimium* with an abundance of lovely white blooms.

Puget Garden Resources is a heady experience for plant name-droppers. How about the aforementioned *Maytenus boarius*, an evergreen tree from Chile with willow-like leaves and form, and *Lyonothamnus floribundus*, the evergreen Catalina Ironwood with many white bisexual flowers. Wow! Not to mention a dwarf *Eucalyptus* for containers, with terrific new mahogany growth. (Better keep this one indoors for the winter.) Any *elaagnus*, *hebes*, *cinnamomum* (marginally hardy), *zelkova*, *leycesteria* with its long purple gloom spikes in autumn, and, finally, our native *Myrica californica*, one of the most beautiful and under-utilized shrubs.

Pete is planning to raise more perennials and annuals because a nurseryman does not live by *Pterostyrax hispidus* alone. He is also raising species rhododendrons from seed and cuttings, and many species of maple from seed.

The nursery is usually open Tuesday through Saturday until 4 p.m., but please call first to be sure. The telephone number is (206) 567-4542. Pete sells both wholesale and retail, but no longer offers mail order. If you should wish to write him, the address is Route 5, Box 51, Vashon, Washington 98070. There is no current catalog available, but there will be one later . . . So, hop in the car and enjoy a pleasant ferry ride to one of the most interesting nurseries I have seen for a while. See you next time if I can still afford to write this column.



Every spring, the Vancouver Island Rock and Alpine Garden Society holds its annual show of rock, alpine, woodland, and native plants. All exhibits are of living plants in pots, often lifted just for the show. We believe that it is one of the premiere shows of this kind in North America, and would be most grateful if you would insert a notice about it in any newsletter or other publications you put out.

In 1985, the show will be held at St. Mary's Church Hall, 1701 Elgin Street, Victoria, British Columbia, at the following times:

2:00 p.m. to 9:00 p.m., Friday, April 26
10:00 a.m. to 9:00 p.m., Saturday, April 27

If you have any questions, write me at the above address, or you may phone me at (604) 592-1327, evenings best.



WINTER 1983 -- WHAT HAPPENED !

ONE YEAR LATER

Florence Free, Seattle, Washington

The severe weather during the winter of 1983-84 caught me unawares. It wasn't until spring came and winter damage began to show up that I realized how severe conditions had been. There were many surprises. Here are some of them:

PLANTS NEVER DAMAGED BEFORE LAST WINTER

Juniperus communis 'Compressa', a four-foot tall, twenty-two-year-old, columnar beauty. The sunny side is dying from the top down; the damage is still progressing. It is so scarred that it may not be worth saving even if I can because I know from a scar caused by cats that it takes years for it to heal. A young J. c. 'Compressa' is unequivocally dead.

Kalmiopsis Leachiana, nineteen years old. It has dropped almost all its leaves. There is still a little life showing on lower branches on the shady side. A nine-year-old *Kalmiopsis* shows similar damage.

PLANTS KILLED OUTRIGHT

Microcachrys tetragona, twelve years old.

Chamaecyparis obtusa 'Golf Ball', nine years old.

Dryopteris erythrosora, twelve years old. (A young one survived.)

Daphne collina var. *neapolitana*, twenty-four years old. This was a huge plant, three feet by two and one-half feet high. Old age may have been a contributing factor.

PLANTS DAMAGED BUT RECOVERING

Corokia cotoneaster, twenty years old and six feet tall. By the end of winter it had lost all its leaves, but it has now recovered.

Adiantum capillus-veneris, thirty-four years old. It has always looked dead by spring, but this spring it looked more so. I am glad to say that after a slow start it is now as good as ever.

PLANTS UNDAMAGED -- TO MY SURPRISE

Raoulia australis. I have lost big mats of this in other winters. I keep replanting it because its mat is the best place to sow seeds of *Castilleja miniata*.

Jasminum parkeri. This was my third attempt to carry it over winter outdoors. Maybe I was successful this time because I had planted it where it had gotten some protection from winter sun and wind; the others were planted in the open.



BOOK REVIEW: CAMELLIAS, Chang Hung Ta and Bruce Bartholomew, Timber Press, Portland, Oregon, in conjunction with the American Camellia Society, Fort Gaines, Georgia; Pp. 212; 74 line drawings, 3 maps (1984). Price: \$29.95.

The authors of this new and authoritative account of the genus *Camellia* are respectively Professor of Botany and head of the Department of Biology at Sunyatsen University, Canton, China, and Director of the Herbarium of the Academy of Science, San Francisco, California. It supersedes J. R. Sealy's Revision of the Genus Camellia (1958), which contained 106 species, of which 24 were imperfectly known to him. The present work includes some 200 species, of which 92 are newly described -- an indication of how much knowledge of the genus has expanded in China in the last 25 years. It is based on and translated from Professor Chang's monograph, in Chinese, published by the Sunyatsen University in 1981.

A lengthy preface by Dr. Bartholomew compares Sealy's work with the present much fuller account of the genus, gives historical information on the introduction of these ornamental shrubs or small trees to western gardens in the mid-18th and early 19th centuries (*C. japonica*, *C. sinensis*, *C. oleifera* and *C. reticulata*, in that order), and speculates on the horticultural potential of some of those not yet introduced here. Some 40 species are now being grown in the U.S.A. A bibliography follows this preface.

Chapter 1, Introduction, reviews the Taxonomy, Phylogeny, and Geographical Distribution of the genus, and includes maps of (a) the number of species in various areas of eastern Asia, southern China being the center of distribution, extending north to Korea, west to Nepal, south to North Borneo and Indonesia; (b) hardiness zones of North America; and (c) the same for Europe. The economic values of its products, tea, oil and medicinal, are also reviewed here.

Chapter 2 is devoted to a key to the four subgenera and their individual sections. For each of these in the text there is also a key to the species included in it; for each species a reference to its original place and date of publication, with usually a short description in English, but in the case of recently described species a full one in both Latin and English, with a short list of specimens cited, from all areas where it is found. Some are very widespread in their distribution, others of very limited area.

Each of the remaining four chapters covers one of these four subgenera into which the genus is now divided: (1) *Protocamellia*, with three sections and nine species, including *C. granthamiana* from Hong Kong; (2) *Camellia*, having seven sections and 73 species, among them *C. sasanqua*, *C. oleifera*, *C. reticulata*, *C. pitardii*, and the type of the entire genus, *C. japonica*; (3) *Thea*, with eight sections and 60 species, among them ten with yellow flowers (Section *Chrysantha*) native to south China or Vietnam, and the tea plant, *C. sinensis*; (4) *Metacamellia*, with two sections and 57 species. Here we find *C. cuspidata*, *C. tsaii*, *C. lutchuensis* and *C. fraterna*, all of which are now in cultivation in this country.

The detailed drawings, by five Chinese artists, are appropriately placed close to the descriptions of the species. The majority depict one species per

page of 11 by 8-1/2 inches, but two are also quite frequent, three rarely. The plants are usually shown in flower, which serves to whet our appetites for some of these as yet unintroduced species such as *C. kweichowensis* with red flowers 10 cm in diameter, the recently described *C. omeiensis* also possessing large red flowers, and *C. lucidissima*, and near relative of *C. japonica*. Fruits are also shown in many cases, since these are often important in identifying species. The book concludes with a full index. On the front wrapper is a color plate of the very desirable *C. chrysantha* with butter-yellow flowers; happily this is now in cultivation in this country.

For camellia growers and lovers this is an essential reference work of great merit, and one to be added to all horticultural and botanical libraries. We are greatly indebted to both authors for updating our knowledge of this large and important genus of woody plants, as well as to the artists who illustrated it and the publisher who produced such an attractive and practical volume.

B. O. Mulligan



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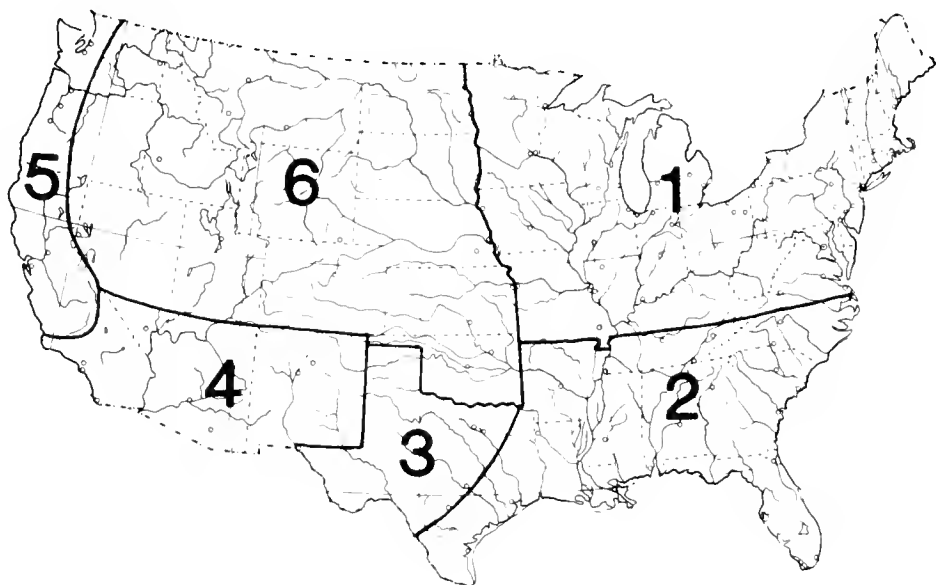
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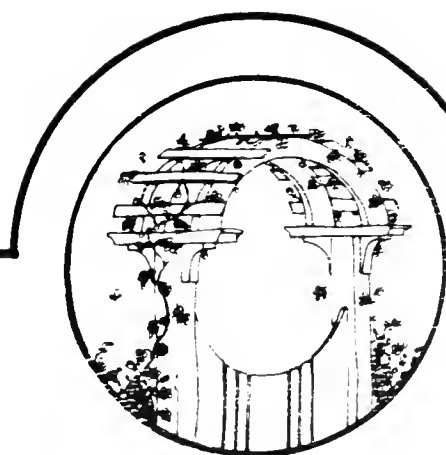
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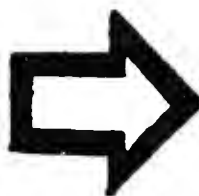
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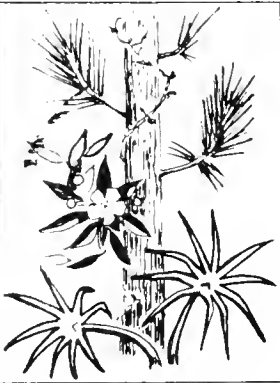
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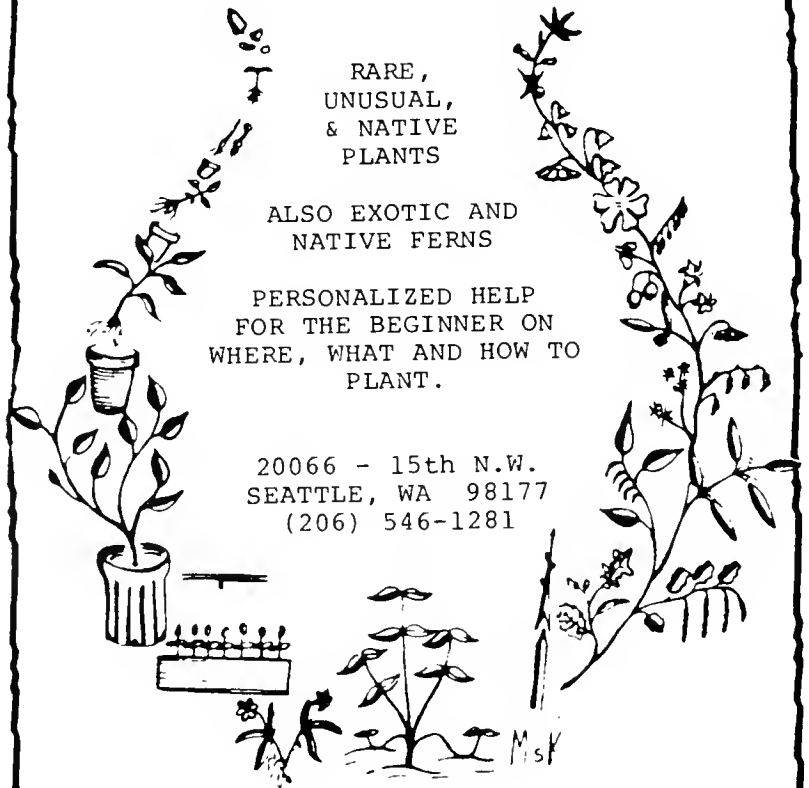
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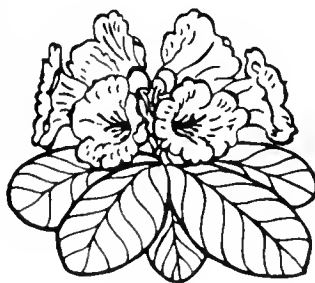
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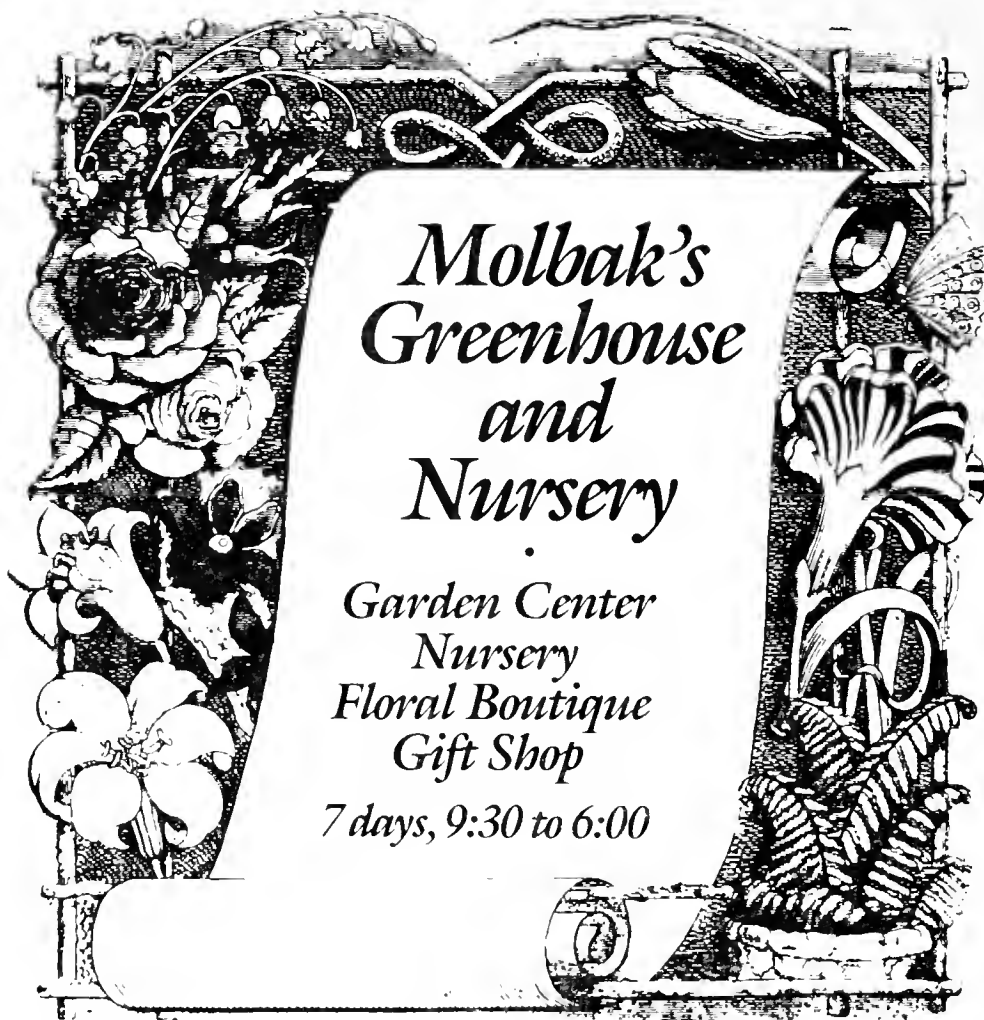
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